



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,910	02/20/2004	Eric Peyrucain	17307.04104	5420

24257 7590 04/20/2007
STEVENS DAVIS MILLER & MOSHER, LLP
1615 L STREET, NW
SUITE 850
WASHINGTON, DC 20036

EXAMINER

HOLZEN, STEPHEN A

ART UNIT	PAPER NUMBER
----------	--------------

3644

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/781,910

Applicant(s)

PEYRUCAIN ET AL.

Examiner

Stephen A. Holzen

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007 and 19 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-38 is/are pending in the application.
- 4a) Of the above claim(s) 24-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-23, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 21-24, 37 and 38 have been considered but are moot in view of the new ground(s) of rejection.

Election/Restrictions

2. Claims 24-36 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 2/5/2007.

Applicant argued that the election should be withdrawn because the applicant does not believe that there is a burdensome search required to examine each claimed species.

The traversal is on the ground(s) that the examiner is not unduly burdened by examining each claimed species. The inventions are directed to related methods. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e. are mutually exclusive, the inventions as claimed are not obvious variants and the invention as claimed can have a materially different mode of operation. See MPEP 806.05(j). In the instant case the previously identified species are distinct because the species do not overlap in scope, they are not obvious variants of each other and the method steps result in a materially different mode of operation.

Because these inventions are independent of distinct for the reasons given above and the inventions require a different field of search (see MPEP 808.02) restriction for examination purposes as indicated is proper. Applicant should appreciate that the phrase "field of search" does not require the examiner to search through different class or subclasses. Instead the phrase

“field of search” simply means that one claim would require the examiner to search for a limitation not required by the other claim.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-24, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibbs et al (6,856,864) in view of Harenburg (3,789,356).

Gibbs et al teaches a method to assist the piloting of an aircraft comprising

(b) selecting on the basis of flight conditions, one of a plurality of different non-precision approach categories (Col. 6, lines 10-45; Col. 7, lines 1-2; Col. 7, lines 11-29, Col. 8 lines 8-17; Col. 8, line 31, Col. 8, lines 34-36)

(c) presenting the selected approach category on a display screen (114; Col. 4, lines 12-20; Col. 8, lines 21-23)

wherein each non-precision approach category define the approach mode or modes that are possible from among a plurality of approach modes including a plurality of assisted approach modes and a selected approach mode (see col. 8, lines 8-17).

Gibbs teaches that it is necessary to monitor and verify a plurality of data sources prior to the selection of a landing/approach mode. Specifically Gibbs teaches in Col. 4, lines 45-52, "Data sources 108 include various types of data required by the system, for example, state of the aircraft data, flight plan data, data related to the airways, waypoint and associated procedures, navigational aids, symbol textures, navigational data, obstructions, font textures, taxi registration, special use aircraft..."

The examiner asserts that Gibbs teaches that a pilot may choose any one of the various possible assisted approach modes that are given to him/her as options.

Gibbs does not specifically teach verifying:

- Two FMC are functioning correctly;

- GPS receivers are functioning correctly;

- Two IRS are functioning correctly;

- Landing assistance receivers are functioning correctly;

- The aircraft altitude has a greater precision than a predetermined value;

Harenberg et al discloses a performance and failure assessment monitor #12. The failure assessment monitor is connected to "literally hundreds of inputs from sensors (each necessarily having their own circuitry and control) throughout the aircraft. The monitor operates on these inputs to generate signal representative of the position of the aircraft

Art Unit: 3644

with respect to the runway. (see Col. 1, lines 58-65). Necessarily the autopilot of Harenberg would include: gyroscopes, air temperature sensors, wind speed sensors, fuel gauges, airspeed, groundspeed, altitude sensors, and horizontal distance sensors.

It would have been obvious to one having ordinary skill in the art to verify that the aircraft sensors are operating properly before determining an approach mode since the approach mode is dependant upon these sensors functioning properly.

In regards to the number of FMC, GPS receivers, IRS, the examiner takes OFFICIAL NOTICE that it is well known to provide redundant receivers and computers in an aircraft in order to increase the safety and reliability of the aircraft.


It would have been obvious to one having ordinary skill in the art at the time of the invention to provide a redundant FMC, GPS receivers and IRS in order to increase the safety of the passengers and crew on board the aircraft.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 571-272-6903. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sah